REMARKS

In view of the foregoing amendments and the following remarks, reconsideration of the present patent application is respectfully requested.

The independent claims 1, 11 and 15 and dependent claims 2-6 and 14 have been amended to more clearly define the subject matter of the present invention. In addition, for more clearly distinguishing the present invention from the cited references, we define the base has natural decomposing ability (Page 3, line 14) and a covered securing layer (Page 4, line 19), and the plurality of concavities (Page 2, line 7) are designed to have a specific distance interval (Page 2 line 18) for improving the use of the cultivating material and preventing the overuse of the cultivating material. All of the amendments can be supported by the specification of the present invention, and therefore there is no new matter added therein.

Rejection under 35 U.S.C. §102

The claims 1-3, 5-13 and 15 are rejected under 35 U. S. C. 102(b) as being anticipated by Weber *et al*, (US 526,512) 1894.

As to independent claims 1 and 11, the Examiner alleges that Weber *et al.* discloses an appliance for and method of sowing seeds comprising the steps of: a) providing a base (A) of sufficient thickness to allow seed pockets to be made which may be about one-eighth of an inch [(read as thin); lines 65-70] with water-absorbing ability (page-1, line-27), humidity-maintaining ability, wherein said base comprises a plurality of concavities (seed pockets, lines 63-66); b) inlaying the seeds in the concavities of the base (page-1, lines 30,38,67 and 100) with a securing layer [cover (a); lines 74-80]; c) covering a cultivating material (ground soil) with the base (A), wherein each concavity has a void (page-1, lines 80-90) therein for allowing a radicle of a corresponding seed to pierce therethrough and be rooted in the cultivating material (page-2, lines 27-30).

As to claim 15, the Examiner alleges that the discussion above regarding claims 1 and 11 is relied upon and Weber *et al.*, further discloses the sheet in nature acts as a mulch (page-2, line 19), and the seed holding sheet or mat is made of some fibrous matter (read as paper).

However, the base cited by Weber *et al.* does not disclose a base having natural decomposing ability and having a specific amount of concavities for properly controlling the use of the soil fertility. In recent decades, the so-called organic farming of cultivating plants with the least or even without any chemical agent is a major trend for agricultural

production. For reducing the use of chemical agents, e.g. herbicide, fungicide and insecticide, it is possible that the farmers need to weed just by hands. Such weeding will cost a huge amount of manpower and may delay the farming for a period of time. Lately, a new method to proceed the step of weed-removal is performed by covering the land with a black plastic film for light-blocking to prevent the weeds from growing. It is known that the light blocking material has been used previously, but a thin base having a securing layer that can be decomposed naturally is never disclosed.

However, since the prior black plastic film can't be decomposed naturally, a new problem of environmental pollution will occur once the plastic film is discarded. In view of the above-mentioned, to deal with the problems of weeding and environmental pollution, and to properly control the use of soil fertility simultaneously, some new sowing method and materials are necessary. Therefore, the present invention, which provides a base having natural decomposing ability would solve the problems of weed-removal and environmental pollution at the same time and is distinct from the Weber *et al.* disclosed patent.

On the other hand, the present invention that provides a naturally decomposable base not only solves problems but also provides an idea of sustainable use of the natural resources. In addition, the Examiner considered the disclosure of "a matt, which will fertilize the soil..." recited by Weber *et al.* is certainly read on the limitation "possesses a natural decomposing ability" as cited in the present claim 1. However, the reason for the mat disclosed by Weber *et al.* and fertilizing the soil is that the mat is incorporating some fertilizers, which are attached thereon, but not the mat itself does not act as a fertilizer. Further, the use of additional fertilizers increases the cost of preparing the mat. On the contrary, the natural decomposable ability of the base disclosed by the present application present s a whole base that can be completely decomposed to improve the soil fertility by itselfwithout the use of additional fertilizers. Also, since the mat disclosed by Weber *et al.* fertilizes the soil through the use by the combined fertilizer, the remaining mat (un-decomposed naturally) still caused an environmental problem. Although the remaining mat can be removed for preventing the environmental problem, the expense of removal and disposal needs to be considered.

Therefore, the claimed thin base of the present invention with the natural decomposing ability is good for protecting the environment, reducing the cost, and making the full use of the material resources. It is believed that the independent claims 1, 11 and 15 having the feature of the thin base with the natural decomposing ability are novel. Nevertheless, the applicant would be willing to define the thin base further comprises the feature of "without environmental contamination", if absolutely necessary to obtain an allowance. Therefore, only from the views of cost and the environmental protection, it is obvious that the disclosed base of the present application does have included obvious novelty and progressiveness than that disclosed by Weber *et al.*

Further, the present invention discloses a securing layer not only for fixing the plant seeds but also for acting a role of "soil-covering", which provides a weight to induce the geotropism of the radicles of said plant seeds. Then, the radicles will pierce through the base and be rooted in the cultivating materials, and the lodging of the plants will reduce. On the other hand, Weber *et al.* discloses a retaining cover that is fastened to the upper face of the seed containing mat. Therefore, since the present invention provides a securing layer not only for fixing the plant seeds (as the prior covering layer functions) but also for inducing the geotropism of the radicles (an use of plant natural instinct), the invention has much more practicability than the prior art.

Furthermore, the present invention discloses the base to have a plurality of concavities having a specific distance interval, it is designed for properly using the culturing material. Today, controlling the distance between plants is an effective cultivation method for using the space effectively and keeping the sustainable use of the land. Undoubtedly, for directly seeding plants, it's most convenient to seed just by spreading, but under such a circumstance, a further step of thinning is necessary, and more additional plant seeds and manpower will be unnecessarily wasted. In view of the above, the present invention does disclose a base for increasing the uniformity of nutrition absorption, the use of growth space of the plant seeds, and the sustainable use of land for reducing the additional cost. Therefore, from the view of sustainable management and the resource protection, the present application does present novelty and progressiveness.

As to claims 2-3, 5-10, 12-13, since these claims are respectively dependent on independent claims 1 and 11, the amendments to independent claims 1 and 11 should obviate the rejections of claims 2-3, 5-10 and 12-13.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejections under 35 U.S.C. § 102.

Rejection under 35 U.S.C. §103(a)

The claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber *et al.* (US 526,512) 1894, in the view of Fuss (EP 477514A1) 1992.

As indicated by the Examiner, Weber *et al.* failed to disclose a mat thickness ranged of 0.2 – 0.3 mm, and Fuss taught a sheet-like seed carrier for cultivating seed types, characterized by a water-soluble plastic base film bonded to a covering film of the same material, both having a thickness of up to 0.025 mm with an extensibility for matching to the surface of the seed grains, and by a thin film of water-soluble adhesive with a thickness of 0.012 – 0.020 mm.

It's known to one skilled in the art that, for allowing seed pockets, a mat should have enough thickness, so that the thickness is probable an important determinant. But, actually, the determinant is not the thickness of the mat, it should be the support strength of the mat. However, since it is natural that thicker material has more support strength than that of thinner one, it is usually to use the thickness of the mat for representing the support strength. Therefore, when the used mats are made of the same material, the technique for reducing the thickness but maintaining or increasing the support strength should be the feature. Therefore, the present application with less thickness than that of the cited reference (Weber *et al.*) does have the progressiveness than the cited reference. Further, since the thickness of the present application is less than that of the cited reference, less material is required, the present application meets the trend requirements of making the full use of the resource.

On the other hand, when the materials used to make the mats are not the same, it will be meaningless to just compare the thicknesses for judging the creativities between them. Nevertheless, the cited reference (Fuss) teaches a water-soluble plastic base film, but the thin base of the present application is made of one selected from a group consisting of a mulching paper, a fabric, a fiber and a polymer with natural decomposing ability, so that the used materials are different. Therefore, it is meaningless to compare the mats depending on different standards. Further, since the used water-soluble film may be dissolved quickly by rain before the plant seeds germinate the function of inducing the geotropism of the radicles will be lost. Therefore, the water-soluble plastic film and the covering film taught by Fuss both are not suitable for being used in the area with a humid climate. Contrarily, the thin base of the present application is made of a naturally decomposable material, the use scope of the present application is much wider than that of cited reference (Fuss). As above-mentioned, the allegation of the Examiner that the used material and the thickness thereof by the references of Weber *et al.*,(disclosed the used material of the mat) and Fuss (disclosed the thickness of the thin film) had taught the features of the claims 4 and 14 might be a personal hindsight. According to the decision of **"It is well settled that a prior art reference is relevant for all that it teaches to those of ordinary skill in the art." In re Fritch, 972 F.2d 1260, 1264 (Fed. Cir. 1992)**, a reconsideration of these claims is respectfully requested.

As above-mentioned, the reconsiderations of the independent claims 1, 11 and 15 of the present patent application are respectfully requested, since they have the following advantages, e.g. great weeds preventing efficiency (the thin base is made of a light-blocking material), lower cost (the thin base has less thickness, and no additional fertilizers are added, and no unnecessary waste of seeds happens while spreading for sowing, and no thinning is necessary), lower environmental pollution (the thin base is made of a naturally decomposable material), sustainable management of the land resource (the plurality of the concaves are designed properly to have a specific distance

interval between plants), and better applying scopes (the thin base of the present application is made of a naturally decomposable material and not only from a water-soluble plastic film). In such a manner, it is believed that the independent claims 1, 11, and 15 should be patentable.

As to claims 4 and 14, since these claims are respectively dependent on independent claims 1 and 11, the amendments to independent claims 1 and 11 should obviate the rejections of claims 4 and 14.

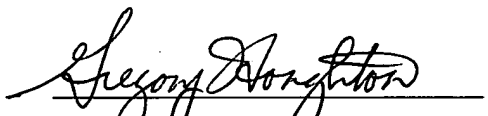
Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejections under 35 U.S.C. § 103(a).

Conclusion

In view of the remarks and the amendments, further and favorable consideration of the present application and the allowance of all pending claims are respectfully requested. The Examiner is also invited to contact the undersigned should the Examiner believe that such contact would expedite prosecution of the present application.

It is believed that no fee is required in connection with the filing of the present Amendment. However, if any fee is required, the Commissioner is authorized to charge any such fees or credit any overpayment to Deposit Account No. 13-2165.

Respectfully submitted,



Gregory C. Houghton
Reg. No. 47,666
Attorney for Applicant(s)

DATE: September 2, 2003
MATHEWS, COLLINS, SHEPHERD & McKAY, P.A.
100 Thanet Circle, Suite 306
Princeton, New Jersey 08540-3662
Telephone: (609) 924-8555
Telecopier: (609) 924-3036